2 3 5 4 6 NOTES FOR DESIGNER: (DO NOT INCLUDE ON CONSTRUCTION DRAWINGS) THE STANDARD DETAILS ILLUSTRATE ONLY A FEW OF THE POSSIBLE EMERGENCY EQUIPMENT COMBINATIONS THAT MAY BE REQUIRED FOR A SPECIFIC PROJECT. 2. WHEN EDITING DETAIL TO SUIT PROJECT, ADD JOB SPECIFIC REQUIREMENTS AND DELETE ONLY THOSE PORTIONS THAT DO NOT APPLY. TO SEEK A VARIANCE FROM APPLICABLE REQUIREMENTS, CONTACT THE ESM MECHANICAL POC. 3. EMERGENCY EQUIPMENT AND INSTALLATION SHALL COMPLY WITH ANSI/ISEA Z358.1-2014, AMERICAN NATIONAL STANDARD FOR EMERGENCY EYEWASH AND SHOWER EQUIPMENT. 4. PROVIDE TEPID WATER TO EMERGENCY EQUIPMENT EXCEPT FOR EXISTING SYSTEMS. REFER TO THE ESM MECHANICAL CHAPTER, SECTION D20 PLUMBING, FOR REQUIREMENTS. 5. WHERE THE POSSIBLITY OF FREEZING CONDITIONS EXIST, PROTECT EQUIPMENT FROM FREEZING OR INSTALL FREEZE PROTECTED EQUIPMENT. 6. CONSULT WITH IHS AND THE USER TO DETERMINE EMERGENCY EQUIPMENT LOCATIONS, QUANTITIES. TYPE AND COMBINATIONS (SHOWER/EYEWASH, SHOWER,

7. LOCATE EMERGENCY EQUIPMENT IN ACCESSIBLE LOCATIONS THAT REQUIRED NO MORE THAN 10 SECONDS TO REACH AND WITHIN 100 FEET OF THE HAZARD. WHEN THE HAZARD IS HIGHLY CORROSIVE, SUCH AS A STRONG ACID OR CAUSTIC, THE EQUIPMENT

THE ROUTE TO GET TO EMERGENCY UNITS MUST HAVE NO CHANGE IN ELEVATION (I.E. STEPS OR UNEVEN GROUND). PASSAGE THROUGH NO MORE THAN ONE DOORWAY, AND NO PATHWAY OBJECTS.

9. SIZE PIPING NO SMALLER THAN THE INLET SIZE OF THE UNIT.

SHOULD BE WITHIN 10 FEET OF THE HAZARD.

10. PROVIDE A MINIMUM OF 30 PSIG PRESSURE TO THE EQUIPMENT. INSTALL A PRV IF PRESSURE AT EQUIPMENT EXCEEDS 60 PSIG.

11. THE FOLLOWING IS THE MINIMUM FLOW AND TIME REQUIREMENTS FOR EMERGENCY EQUIPMENT UNITS BASED ON 30 PSIG INLET SUPPLY PRESSURE.

> SHOWER 20 GPM **15 MINUTES** DRENCH HOSE 3 GPM 15 MINUTES EYE/FACE WASH 3 GPM 15 MINUTES **EYEWASH** O.4 GPM 15 MINUTES

12. FLOOR DRAINS ARE NOT ALLOWED WHEN SAFETY SHOWERS ARE INSTALLED IN NEW CONSTRUCTION. IN RETROFIT CONSTRUCTION, A SHOWER MAY BE LOCATED NEAR AN EXISTING DRAIN, PROVIDING THE DRAIN IS TIED INTO SANITARY SEWER WASTE SYSTEM AND APPROVAL IS OBTAINED FROM ES-UI SANITARY WASTE SME.

13. WASTE LINES FROM EYEWASH OR EYE/FACE WASH UNITS SHALL DISCHARGE ONTO FLOOR.

14. LOCATE CENTERLINE OF EMERGENCY EQUIPMENT A MINIMUM OF 7 FEET FROM ELECTRICAL OR MECHANICAL EQUIPMENT (I.E. TRANSFORMERS, COMPRESSORS AND SIMILAR ITEMS). EQUIP ELECTRICAL OUTLETS WITHIN 6 FEET WITH A GFCI.

15. AN ALARM SYSTEM MAY HAVE TO BE INSTALLED WHEN THE EMERGENCY UNITS ARE INSTALLED IN REMOTE AREAS OR IN HAZARDOUS LOCATIONS WHERE THERE ARE FEW PEOPLE. IHS AND THE USER WILL MAKE THIS DETERMINATION.

16. ALLOW A MINIMUM UNOBSTRUCTED AREA OF 34" IN DIAMETER WHEN A SHOWER PRIVACY SCREEN (2, 3, OR 4 SIDED) IS REQUESTED BY THE USER.

17. CONSIDER CORROSION RESISTANT MATERIAL IF EMERGENCY EQUIPMENT IS INSTALLED IN HARSH ENVIRONMENTS.

18. PORTABLE EYEWASHES MEETING STANDARD ANSI/ISEA Z358.1-2014 MAY BE USED ONLY FOR TEMPORARY OR FIELD OPERATIONS OR WHERE POTABLE WATER IS NOT AVAILABLE.

DRAWING DEVELOPED FOR ML-3/ ML-4 PROJECTS. FOR ML-1/ ML-2, ADDITIONAL REQUIREMENTS AND QA REVIEWS ARE REQUIRED. (REMOVE THIS NOTE WHEN INSERTED INTO A DRAWING PACK-AGE).

4	06-15-2017	UNCLASS		ADMIN. CHANGES TO CAD STD. REV#5					
		011021100	TO	FORMAT	JB	AJ	ML	ML	TO
3	08-14-2003	U	LB	EDITORIAL CHANGES & DWG. NO. WAS ST6000	RP	JM	RR	GG	ТО
2	10-25-2002	U	LB	REVISED NOTES 3 AND 12	RP	RR	GG	GG	ТО
1	09-06-2002	U	LB	REVISED NOTES	RP	RR	GG	GG	ТО
NO	DATE	CLASS REV	DC	DESCRIPTION	DWN	DSGN	CHKD	SUB	APP

## **ENGINEERING STANDARDS**

R.PEARSON

R.ROMERO

G.GREWAL

DATE 06-28-99

DESIGN

CHECKED

**MECHANICAL** 

**EMERGENCY EQUIPMENT DETAIL** 

**DESIGN NOTES** TA- XX BLDG- XX

SUBMITTED APPROVED FOR RELEASE DISCIPLINE POC: GURINDER GREWAL STANDARDS MANAGER: TOBIN ORUCH • Los Alamos PO Box 1663 Los Alamos, New Mexico 87545 OF REVIEWER: LARRY BAYS DATE: 06-28-99 PROJECT ID DRAWING NO **CHAPTER 6** ST-D2010-1